



CASE FILE #0002

Predicting Avocado Markets with AI



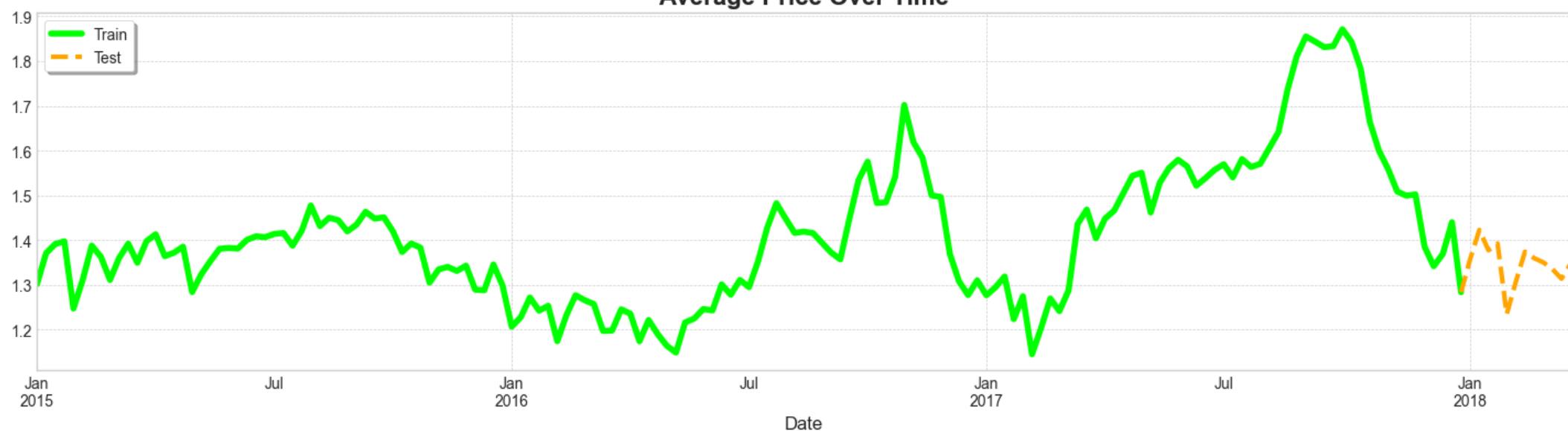
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Overview and first considerations

Average Price Over Time



Historical weekly prices from January 2015 to March 2018.

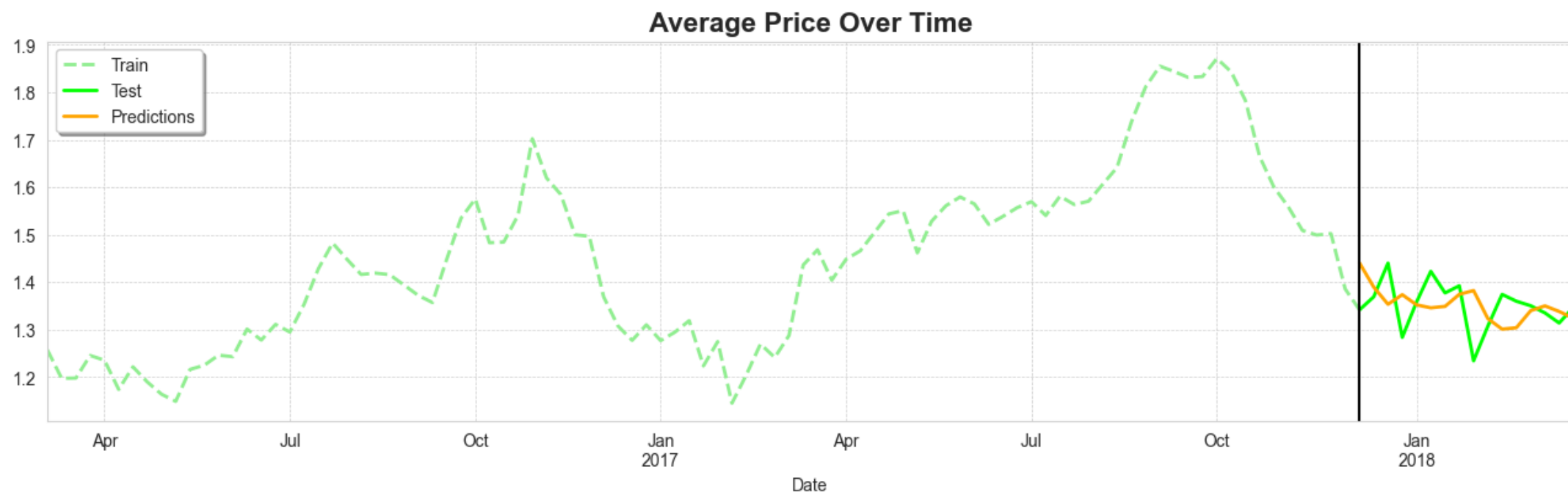


Train dataset from January 2015 to October 2017.



Model

A Long Short-Term Memory (LSTM) model with 3 hidden layers of 64, 32, and 32 neurons respectively for each layer.



The training process will go through the entire dataset two hundred times (200 epochs).



Results

Sample of the predictions results (January 2024)

Dates	Predictions	Actuals
2017-12-10	1.44	1.34
2017-12-17	1.39	1.37
2017-12-24	1.35	1.44
2017-12-31	1.37	1.28
2018-01-07	1.35	1.36
2018-01-14	1.35	1.42
2018-01-21	1.35	1.38
2018-01-28	1.37	1.39
2018-02-04	1.38	1.23
2018-02-11	1.32	1.31
2018-02-18	1.30	1.37
2018-02-25	1.30	1.36
2018-03-04	1.34	1.35
2018-03-11	1.35	1.34
2018-03-18	1.34	1.31
2018-03-25	1.32	1.35

96,3%

Week	Accuracy (%)
0	92.64
1	98.51
2	93.98
3	93.00
4	99.58
5	94.59
6	97.94
7	98.71
8	88.01
9	98.78
10	94.67
11	95.89
12	99.22
13	98.90
14	98.15
15	98.29

**Prediction accuracy of the whole test dataset
(October 12th 2017 until March 31st 2018)**



Conclusion

This result demonstrates that it's better to have a model like this to make better-informed decisions than to just go with the flow.

By integrating deep learning into your strategic toolkit, you can navigate the complexities of modern markets with confidence. This is the future - predictive, proactive, and powered by AI. Let's harness this potential together.